

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 75 (MAIN STREET) AND BROADWAY STREET IN THE TOWN OF UNION BRIDGE, CARROLL COUNTY. MD 75 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 75 APPROACHES OPERATING CONCURRENTLY AND THE BROADWAY STREET APPROACHES OPERATING CONCURRENTLY. INDICATIONS WILL BE PROVIDED ACROSS ALL LEGS OF BROADWAY STREET INTERSECTION.

CONTROLLER REQUIREMENTS

INSTALL A EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER, INTERSECTION MONITOR FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SYNDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SYNDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.35 (LANE SHIFT)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 624-8141

MR. JIM BUCKALEW  
ACTING DISTRICT UTILITIES ENGINEER  
PHONE: (310) 729-8436

MR. LEON KERNS  
ACTING ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 624-8140

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
971016	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP, HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET
973023	22 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH D-3(1) SIGN (VARIABLE x 16 IN.) - POLE MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	8 C.Y.	TEST PIT EXCAVATION
585620	290 L.F.	12 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
585624	60 L.F.	24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
801004	8 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	240 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805010	30 L.F.	1 IN. ELECTRICAL CONDUIT GALVANIZED RISER
800000	40 L.F.	2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
807400	1 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT - 120/240 VOLTS 60 AMPS
805135	50 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805155	160 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805160	40 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
810010	45 L.F.	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 A.W.G - THHN/THWN
810550	2 EACH	MICROLOOP PROBE SET WITH 500 FOOT LEAD-IN CABLE
811001	4 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	22 S.F.	INSTALL OVERHEAD SIGN
818004	3 EACH	10 FT. BREAKAWAY PEDESTAL POLE
818041	1 EACH	27 FT. STEEL POLE WITH SINGLE 60 FT. MAST ARM
837001	4 EACH	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860270	24 EACH	8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	2 EACH	12 IN. PEDESTRIAN SIGNAL HEAD SECTION - POLE MOUNT
860282	6 EACH	12 IN. PEDESTRIAN SIGNAL HEAD SECTION - PEDESTAL MOUNT
860292	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861104	260 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861106	1100 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
861107	100 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	300 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
862101	1100 L.F.	LOOP WIRE ENCASED IN 1/4 INCH FLEXIBLE TUBING (NO. 14 A.W.G)
862102	750 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
871201	1 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT
800000	LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT

EQUIPMENT LIST "C"

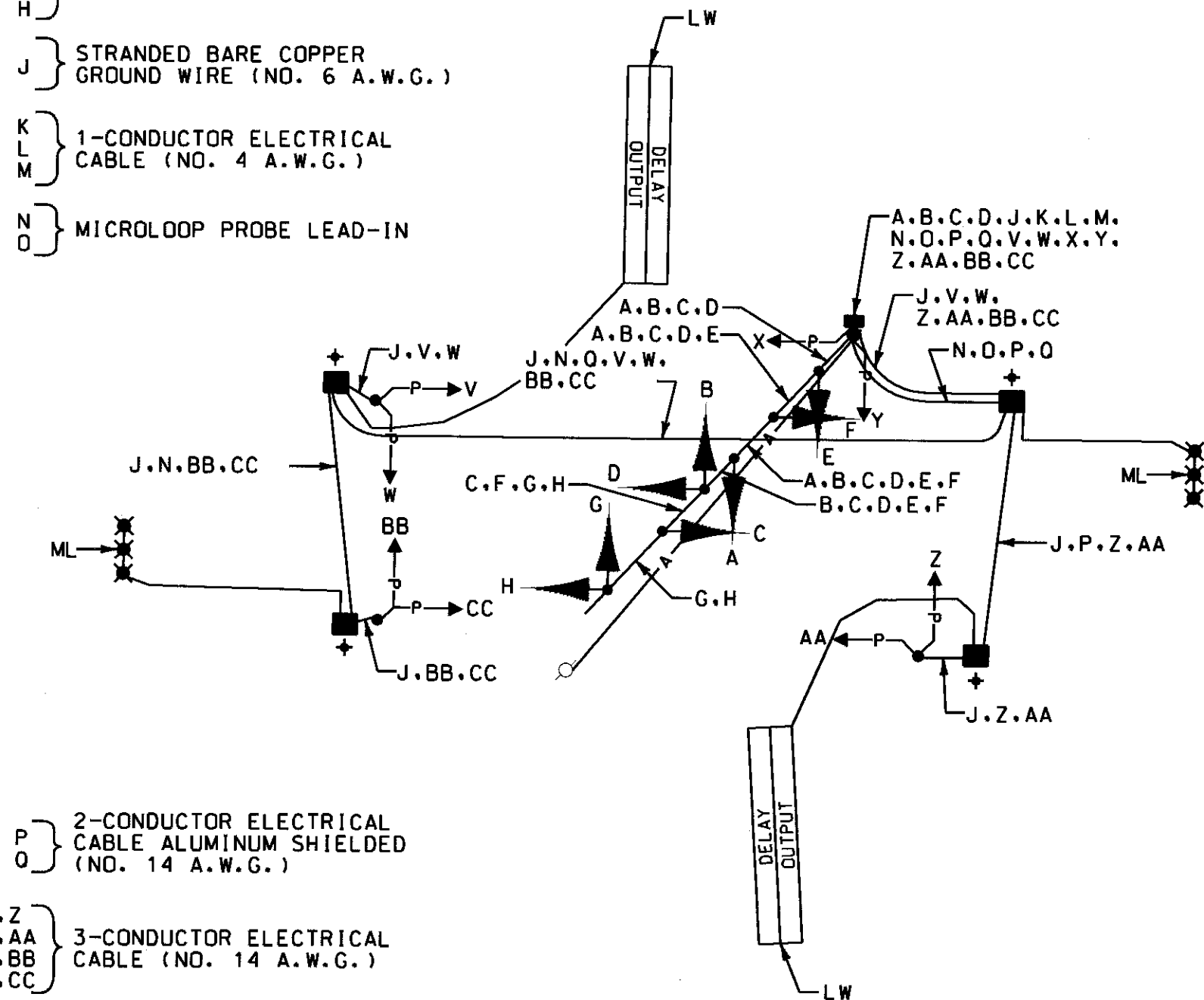
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM

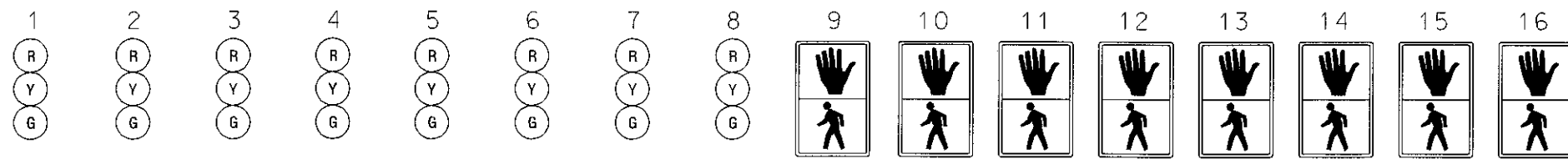
WIRING KEY

- A  
B  
C  
D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E  
F  
G  
H } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- K  
L  
M } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- N  
O } MICROLOOP PROBE LEAD-IN



- P  
Q } 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- V, Z  
W, AA  
X, BB  
Y, CC } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- LW - LOOP WIRE (NO. 14 A.W.G.)
- ML - MICROLOOP PROBE SET
- PE/PT - PROPOSED OVERHEAD ELECTRICAL AND TELEPHONE SERVICE
- + - 3/4 IN. X 10 FT. GROUND ROD

PHASE CHART



PHASE 2 + 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED CLEARANCE	G	G	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

**WR&A**  
Whitman, Reardon  
and Associates, LLP

801 South Caroline Street  
Baltimore, Maryland 21231  
(410) 235-3450



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION SHEET  
MD 75 (MAIN ST) AND BROADWAY ST

DRAWN BY: S. BLOSS  
CHECKED BY: N. LEARY  
SCALE: NONE  
DATE: 4/3/02

F.A.P. NO.  
S.H.A. NO.  
COUNTY: CARROLL  
LOG MILE: 06007500.65

TS NO.  
730 A  
T.I.M.S. NO.  
6067

SHEET NO.  
OF